SREENIDHI EDUCATIONAL GROUP | SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY SNIST AUTONOMOUS

Department of Computer Science and Engineering

Dt:15/11/2023

B.Tech CSE A22 Regulation
Board of Studies Meeting

Date of Meeting: 15/11/2023 Venue: IQAC

Agenda of the meeting:

1. Presentation by Chairman of BOS about department achievements.
2. Review of minutes of the previous BOS Meeting
3. Review and approval of the Revised Course Structures of B.Tech. (CSE) for all four years of A22 Regulation.
4. Approval of the syllabi of B.Tech (CSE) 3rd and 4th years of A22 Regulation.
5. Approval of the syllabi of B.Tech service courses for 3rd and 4th years of A22 Regulation for other branches.
6. Approval in calculation of attainment of Course Outcomes (Direct Tool -Internal exams) with regard to weightage.
7. Approval in calculation of attainment of Program Outcomes with regard to weightage of indirect tool.

V Aruna
Dr. V. Aruna
Prof. & HoD, CSE Dept. SNIST
BoS-Chairperson

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Department of Computer Science and Engineering

Dt: 15/11/2023

The following members were attended the BoS meeting

S. No.	External and Internal Members	Role	Signature
1.	Dr. Aruna Varanasi, Professor and HoD, CSE Dept. SNIST	BoS Chair Person	
2.	Dr. G. Vijaya Kumari, Professor, (HAG) & Director J-Hub, JNTUH.	JNTUH Nominee	
3.	Dr. R. GuruRaj, Professor, BITS, Hyderabad.	Expert from Academia	
4.	Dr. S. Nagender Kumar, Professor, University of Hyderabad.		
5.	Ms. Kanchana Rao, CHRO, ADP Solutions	Industry Experts	
6.	Mr. Dasari Kumara Swamy, India Solution Pvt. Limited.	Alumni	
7.	Dr. Sreedhar Bhukya, Professor, Dept. of CSE, SNIST	Internal BoS members	
8.	Dr. H. Balaji, Professor, Dept. of CSE, SNIST		
9.	Dr. M. Rama Chandra, Assoc. Prof., Dept. of CSE, SNIST		
10.	Dr. V. Sowmya Devi, Assoc. Prof., Dept. of CSE, SNIST		
11.	Dr. S. Dheeraj, Assoc. Prof., Dept. of CSE, SNIST		
12.	Dr. Talakoti Mamatha, Assoc. Prof., Dept. of CSE, SNIST		
13.	Mr. D. Sreenivasa Rao, Asst. Prof., Dept. of CSE, SNIST		
14.	Mrs. N. Archana, Asst. Prof., Dept. of CSE, SNIST		
15.	Mrs. M.Yellamma, Asst. Prof., Dept. of CSE, SNIST		
16.	Mr. Meeravali Shaik, Asst. Prof., Dept. of CSE, SNIST		
17.	Mr. D. Rambabu, Asst. Prof., Dept. of CSE, SNIST		
18.	Mr. V. Satheesh Kumar, Asst. Prof., Dept. of CSE, SNIST		
19.	Mrs. P. Haritha, Asst. Prof., Dept. of CSE, SNIST		

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Department of Computer Science and Engineering

Minutes of the Meeting:

Agenda Item 1. Presentation by Chairman of BOS-CSE about department achievements.

	Publications/ UGC/ conferences	Awards	Patents (Filed/Published/ Granted)	Books & Chapters	FDPs Organized / Attended	Professional body Membership	Certification courses
CSE Faculty	25/130/9	16	2/4/1	9	9/21	63	5

	Industrial visits conducted/ participated	Awards Extra curricular/ Co-curricular	Internships	Certification courses ((NPTEL/Coursera)	Value Added Programs conducted/ completed	Results (2019-Batch)	Qualified in National/ International examinations	Events participated (outside) & Awarded
CSE Students	5/262	51	835	208	11/1,155	290/330	20	45/7

Agenda Item 2. Review of minutes of the previous BOS Meeting.

Reviewed minutes of previous BOS Meeting.

S. No.	Suggestions	Action Taken
1	Dr. S. Vishwanadha Raju suggested o To rename the Orientation Programme as Induction Program o To rename Data Structures Lab using C as Data Structures using C Lab o There should not be any commas in the course titles and hence the respective are suggested renaming accordingly	Renamed
2	Dr. V. Vishwanadha Raju and Dr. Shymala suggested o Mandatory courses with zero credits must be evaluated by internally. o Environmental Science must be studied after studying UHV course.	Same is followed
3	Mr. Anirudh suggested that Robotic Process Automation course to be included as one of the course in Open Electives	Included
4	In Computer Organization Lab, instead of 8086 microprocessor, Raspberry Pi and Arduino can be introduced.	Informed to ECE BoS members

5	Rearrangement of contents in Data Structures course must be done to follow the logical flow.	Rearranged
6	Conduct and encourage to participate students in Hackathons from 2nd year onwards.	Hackathons are conducted and all the students are encouraged to participate in hackathons.
7	Remove the articles in the courses' syllabi.	Removed

Agenda Item 3. Review and approval of the Revised Course Structures of B.Tech. (CSE) III & IV years of A22 Regulation.

The following resolutions are made as per the recommendations of members of BOS.

a. Changes in course in course structure:

S. No.	Approved A22 Course Structure	Proposed changes in A22 course structure (New)	Inputs taken from
1	Machine Learning is in PE – II (III - II)	Machine Learning in III – II core subjects.	BOS members
2	No Machine Learning Lab, instead we have Artificial Intelligence Lab in IV - I	Machine Learning Lab in III – II, instead of Artificial Intelligence Lab in IV - I	Faculty Feedback, Alumni Survey, BOS members
3	Automata Theory and Compiler Design in III – II	Automata Theory and Compiler Design in IV - I	BOS members
4	Compiler Design lab in III - II	Compiler Design lab in IV - I	BOS members
5	Artificial Intelligence and Deep Learning in IV – I	Artificial Intelligence and Deep Learning in PE – II (III - II)	BOS members
6		Image Processing and computer Graphics are swapped between PE-1 & PE-2, as image processing need to be studied before computer graphics	BOS members

b. **New Courses introduced, courses moved, removed, renamed in the curriculum:**

Proposed Changes	A20	A22	Inputs taken from
		In III – II Machine Learning Lab	Faculty Feedback
		In PE – I • Information Retrieval Systems • Advanced Computer	R18 JNTUH

Proposed new courses to be introduced		Architecture • Human Computer Interaction	
		In PE – II Distributed Databases	R18 JNTUH
		In PE – III • Mobile Application Development • Pattern Recognition • Advanced Operating Systems • Soft Computing	R18 JNTUH
		In PE – IV • Full stack Development • Natural Language Processing • DevOps	Faculty Feedback, Alumni Survey, Industry Experts, Employer Feedback, R18 JNTUH
		In PE – V • Ethical Hacking • Advanced Algorithms	R18 JNTUH, Faculty Feedback, Alumni Survey
Courses moved	In II-II • Software Engineering • Design and Analysis of Algorithms • Computer Aided Software Engineering (CASE) Tools Lab • Design and Analysis of Algorithms Lab	• Moved to III – I. • Computer Aided Software Engineering (CASE) Tools Lab is renamed as Software Engineering Lab.	BOS members
	In III – I • Information Security • Information Security Lab	• Moved to IV – I • Information Security renamed as Cryptography and Network Security.	BOS members
	In III – I Open Elective - I	Moved to III - II	BOS members
	In III – II • Automata Theory and Compiler Design • Compiler Design	Moved to IV - I	BOS members

	Lab		
	In III – II Cyber Security and Cyber Laws	Moved to IV - II	BOS member
	In III – II Open Elective - II	Moved to IV - I	BOS members
	In IV – I Professional Elective -III	Moved to III - II	BOS members
	In IV – I Artificial Intelligence and Deep Learning	Moved to Professional Elective -II	BOS members
	In IV – II Professional Elective - V	Moved to IV - I	BOS members
	In Professional Elective – II, Machine Learning	Moved to III – II core subject.	Alumni, Exit, BOS members, Teachers PB.
Courses Removed	In III – II Group Project		BOS members
	In IV – I • Software Automation and Testing • Software Automation and Testing Lab		Important topics of these courses are included in Software Engineering & software engineering lab
	In IV – I Data Analytics Lab		Introduced * machine learning lab
Courses Renamed	In III – I • Data Communications and Networks	Is renamed as Computer Networks	BOS members
	In III – I • Information Security	In IV – I Is renamed as Cryptography and Network Security	BOS members
	In II – II • Computer Aided Software Engineering (CASE) Tools Lab	In III – I Is renamed as Software Engineering Lab.	BOS members

Agenda Item 4. Approval of the syllabi of B.Tech (CSE) 3rd and 4th years of A22 Regulation.

P.T.O.

Minutes:

Syllabus Modified:

S.No.	Name of the Course	Changes made	Inputs From
1	Data Warehousing and Data Mining [III -I]	• Unit -1 is too lengthy and hence it is accommodated in to another units. • Text Mining, Web Mining are added in the unit-6	Industry Experts, Exit survey, Faculty Feedback Alumni Survey, Skills in demand, Faculty Feedback, JNTUH & other reputed Universities
2	Software Engineering [III - I]	**Unit-I** **1)** Added Software Development life cycle	Suggested by course coordinator and subject experts to have basic idea of Software development life cycle so that students can understands essence of further units.
		Unit-II 1) Added Requirements engineering process	Inputs from Software professional bodies
		2) Shifted introduction to UML to III Unit	Suggested by course coordinator and subject experts to maintain the order of SDLC
		III-Unit 1) V model, Agile model, SCRUM	Suggestions from Industry Experts, Inputs from Exit Survey Summary, Suggested by course coordinator and subject experts to meet current market needs
		2) High-Level Design(HLD) and	Suggested by

		Low-Level Design(LLD), Coupling and Cohesion	course coordinator and subject experts to meet current market needs
		3) Removed Common Modeling techniques of class diagram	Suggested by course coordinator and subject experts
		IV-Unit 1) Software Testing Introduction	Suggested by course coordinator and subject experts
		V -Unit 1) Added Testing Strategies and Techniques	1)Inputs from Software professional bodies 2) Inputs from Exit Survey Summary.
		2) Added Product and Process metrics	Suggested by course coordinator and subject experts
		VI Unit 1) Risk Management	Inputs from Software professional bodies
		2) Added Quality Management	Inputs from Software professional bodies
3	Design and Analysis of Algorithms [III -I]	Instead of Amortized Analysis replaced new topic which includes Connected and Bi-connected Components in UNIT-1	From NIT Warangal Syllabus
		Removed Reliability Design topic in UNIT-4	From the Feedback
		Instead of Branch and Bound topics replaced new topic which includes Maze Generation Problem in UNIT-5	From NIT Warangal Syllabus
		new topics which includes Branch and Bound in UNIT-6	From the Feedback
	Software Engineering Lab [III -I]		

4		Added SRS Document	Suggested by course coordinator and subject expert
		Added JUNIT tool	Suggestions from Industry Experts, Inputs from Exit Survey Summary
		Added Automation Testing tools to meet current market needs (UFT 12.01 and Selenium WebDriver)	Suggestions from Industry Experts, Inputs from Exit Survey Summary.
5	Computer Networks Lab [III-I]	Simulate Distance-Vector Routing using CISCO Packet Tracer. Simulate Network Topologies using CISCO Packet tracer.	BOS members
6	Operating Systems [III -II]	Introduced Threads concept in Unit-I	From JNTUH, OU, NITW, IITH Syllabus
		Introduced Inter process Communication(IPC) concept due to continuity of Process Synchronization in Unit-III, Deadlocks concept moved to next unit i.e., UNIT-IV	From JNTU, OU, NITW, IITH Syllabus
		The various concepts of Operating Systems with regard to windows and Linux are discussed by faculty in the classroom and hence it is not need to reflected in the syllabus	Suggested by Operating Systems Subject experts and Teachers Feedback
7	Web Technologies [III -II]	Included CSS3 and removed basics of HTML, replacing with HTML5.	Industry Experts, Exit survey, Faculty Feedback Alumni Survey, Skills in demand, Faculty Feedback, JNTUH & other reputed
		Included advanced script, tail wind.	
		Removed XML, JDBC,JSON, typescript, BOOT STRAP, angular, servlets, PHP	
		Included Node JS, rest API, express, mongo DB, react JS	

			Universities, BOS members
8	Web Technologies Lab [III -II]	All changes are inline with proposed A22 web technologies syllabus	Industry Experts, Exit survey, Faculty Feedback Alumni Survey, Skills in demand, Faculty Feedback, JNTUH & other reputed Universities, BOS members
		Exercises are divided in 6 cycles representing 1 cycle for each unit	
9	Automata Theory and Compiler Design [IV -I]	In UNIT-I equivalence of DFA's concept is added.	Reference from JNTU Hyderabad
		In UNIT-III Chomsky hierarchy of languages is moved to UNIT-I.	Reference from JNTU Hyderabad
		In UNIT-IV predictive parser is same as LL(1) so it is removed.	Reference from JNTU Hyderabad
		In UNIT-V LR(1), LR(K) are duplicated so those topics are removed.	Reference from JNTU Hyderabad
		In UNIT-VI Type Checker topic is removed and Local Optimization is included.	Reference from JNTU Hyderabad
10	Cryptography and Network Security [IV-I]	SHA -1, HMAC moved to third unit	Industry Experts, Exit survey, Faculty Feedback Alumni Survey, Skills in demand, Faculty Feedback, JNTUH & other reputed Universities
		RC4 to be added in unit 2.	
11	Information Security [IV – I]	Implement a program to transfer file between Client-Server using Socket.	BOS members
12	Introduction to Data Science [PE – I]	R is replaced with python, basics and advanced statistics are included.	Faculty Feedback BOS members
13	Full Stack Development [PE - IV]	JQuery, JSON	BOS members

Additional inputs:

a. Guest lectures or invited talks can be conducted for the course Cyber Security & Cyber Laws -Suggested
b. Hackathons are to be conducted more often.

Agenda 6 : Approval in calculation of attainment of Course Outcomes (Direct Tool -Internal exams) with regard to weightage.

This point is deferred to next meeting.

Agenda 7: Approval in calculation of attainment of Program Outcomes with regard to weightage of indirect tool.

This point is deferred to next meeting.

V Aruna

Dr. V. Aruna
Prof. & HoD, CSE Dept. SNIST
BoS-Chairperson

SREENIDHI INSTITUTE OF SCIENCE & TECHNOLOGY

B. Tech.

COMPUTER SCIENCE AND ENGINEERING

COURSE STRUCTURE FOR

I to IV Years

A22 Regulation

(Applicable for the Batches admitted from 2022)

SREENIDHI EDUCATIONAL GROUP

SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY SNIST AUTONOMOUS

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY

(An Autonomous Institution approved by UGC and affiliated to JNTUH)

Yamnampet, Ghatkesar, Hyderabad - 501 301

November, 2023

Department of COMPUTER SCIENCE AND ENGINEERING

B.Tech (COMPUTER SCIENCE AND ENGINEERING)-A22 Regulation

B.Tech (CSE) I YEAR I SEM

Sl. No.	Course Code	Course	L	T	P	C	Max. Marks	
							CIE	SEE
1	9HC04	Engineering Chemistry	2	1	0	3	40	60
2	9FC01	Problem Solving using C	3	0	0	3	40	60
3	9HC11	Matrix Algebra and Calculus	2	1	0	3	40	60
4	9HC01	Essential English Language Skills	2	0	0	2	40	60
5	9HC61	Oral Communication Lab – I	0	0	2	1	40	60
6	9HC64	Engineering Chemistry Lab	0	0	3	1.5	40	60
7	9FC61	Problem Solving using C Lab	0	0	3	1.5	40	60
8	9BC61	Workshop/Manufacturing Processes Lab	0	1	3	2.5	40	60
9	9HC18	Induction Program	2-weeks in the beginning of the semester				Satisfactory / Not satisfactory	
		Total	**9**	**3**	**11**	**17.5**	**320**	**480**

B.Tech (CSE) I YEAR II SEM

Sl. No.	Course Code	Course	L	T	P	C	Max. Marks	
							CIE	SEE
1	9HC07	Engineering Physics	2	1	0	3	40	60
2	9EC01	Data Structures	3	0	0	3	40	60
3	9HC12	Advanced Calculus	2	1	0	3	40	60
4	9AC48	Basic electrical and electronics Engineering	3	0	0	3	40	60
5	9BC01	Engineering Graphics	1	0	4	3	40	60
6	9HC62	Oral communication Lab – II	0	0	3	1.5	40	60
7	9HC66	Engineering Physics Lab	0	0	3	1.5	40	60
8	9EC61	Data Structures using C Lab	0	0	3	1.5	40	60
		Total	**11**	**2**	**13**	**19.5**	**320**	**480**

B.Tech (CSE) II YEAR I SEM

Sl.No.	Course Category	Course Code	Dept Course	Course	L	T	P/D	C	Max. Marks	
									CIE	SE
1.	PC	9EC02	CSE	Object Oriented Programming through Java	2	1	0	3	40	60
2.	ES	9CC51	ECE	Digital Electronics	3	0	0	3	40	60
3.	BS	9HC16	S&H	Quantitative Aptitude and Logical Reasoning	3	0	0	3	40	60
4.	BS	9F303	IT	Discrete Mathematics	2	1	0	3	40	60
5.	HS	9HC03	S&H	Universal Human Values	3	0	0	3	40	60
6.	PC	9EC62	CSE	Object Oriented Programming through Java Lab	0	0	4	2	40	60
7.	ES	9CC82	ECE	Digital Electronics Lab	0	0	3	1.5	40	60
8.	ES	9AC95	EEE and ECE	Basic electrical and Electronics Engineering Lab	0	0	4	2	40	60
				Total	**1**	**2**	**11**	**20.5**	**320**	**480**

B.Tech (CSE) II YEAR II SEM

Sl.No.	Course Category	Course Code	Dept Course	Course	L	T	P/D	C	Max. Marks	
									CIE	SEE
1.	ES	9CC54	ECE	Computer Organization	3	0	0	3	40	60
2.	PC	9FC04	IT	Database Management Systems	3	0	0	3	40	60
3.	PC	9FC02	IT	Python Programming	2	1	0	3	40	60
4.	BS	9HC15	S&H	Probability and Statistics	2	1	0	3	40	60
5.	HS	9ZC01	SMS	Business Economics and Financial Analysis	3	0	0	3	40	60
6.	HS	9HC05	S&H	Environmental Science	3	0	0	-	Pass / Fail	
7.	HS	9HC63	S&H	Soft Skills Lab	0	1	2	2	40	60
8.	PS	9E484	CSE	Technical Seminar	0	1	0	1	100	--
9.	PC	9FC62	IT	Python Programming Lab	0	0	4	2	40	60
10.	PC	9FC63	IT	Database Management Systems Lab	0	0	3	1.5	40	60
11.	ES	9FC64	IT	IT Workshop and Computer Organization Lab	0	0	4	2	40	60
				Total	**16**	**4**	**13**	**23.5**	**460**	**540**

Note: Summer Industry Internship-I is to be carried out during the summer vacation between 4th and 5th semesters

B.Tech (CSE) III YEAR I SEM

Sl.No.	Course Category	Dept Course	Course	L	T	P/D	C	Max. Marks	
								CIE	SEE
1.	PE	CSE/IT	Professional Elective –I	3	0	0	3	40	60
2.	PC	IT	Data Warehousing and Data Mining	2	1	0	3	40	60
3.	PC	CSE	Software Engineering	2	0	0	2	40	60
4.	PC	CSE	Design and Analysis of Algorithms	2	1	0	3	40	60
5.	PC	CSE	Computer Networks	3	0	0	3	40	60
6.	PC	IOT	Intellectual Property Rights	3	0	0	-	Pass/Fail	
7.	PC	CSE	Software Engineering Lab	0	0	3	1.5	40	60
8.	PC	CSE	Computer Networks and Design and Analysis of Algorithms Lab	0	0	4	2	40	60
9.	PC	IT	Data Warehousing and Data Mining lab	0	0	3	1.5	40	60
10.	PS	CSE	Summer Industry Internship –I	0	0	0	1	40	60
			Total	**15**	**2**	**10**	**20**	**360**	**540**

B.Tech (CSE) III YEAR II SEM

Sl.No.	Course Category	Dept Course	Course	L	T	P/D	C	Max. Marks	
								CIE	SEE
1.	OE		Open Elective –I	3	0	0	3	40	60
2.	PE	CSE/IT	Professional Elective –II	3	0	0	3	40	60
3.	PE	CSE/IT	Professional Elective -III	3	0	0	3	40	60
4.	PC	CSE	Operating Systems	3	0	0	3	40	60
5.	PC	IT	Machine Learning	2	1	0	3	40	60
6.	PC	IT	Web Technologies	2	1	0	3	40	60
7.	PC	CSE	Operating Systems and Machine LearningLab	0	0	3	1.5	40	60
8.	PC	IT	Web Technologies Lab	0	0	3	1.5	40	60
9.	PC	CSE	Comprehensive Viva Voce	0	0	0	1	40	60
			Total	**16**	**2**	**6**	**22**	**360**	**540**

Note: Summer Industry Internship-II is to be carried out during the summer vacation between 6th and 7th semesters.

B.Tech (CSE) IV YEAR I SEM

Sl.No.	Course Category	Dept Course	Course	L	T	P/D	C	Max. Marks	
								CIE	SEE
1.	OE		Open Elective –II	3	0	0	3	40	60
2.	PE	CSE/IT	Professional Elective -IV	3	0	0	3	40	60
3.	PE	CSE/IT	Professional Elective -V	3	0	0	3	40	60
4.	PC	CSE	Automata Theory and Compiler Design	2	1	0	3	40	60
5.	PC	CSE	Linux Programming	2	1	0	3	40	60
6.	PC	CSE	Cryptography and Network Security	3	0	0	3	40	60
7.	PC	CSE	Compiler Designand Information Security Lab	0	0	3	1.5	40	60
8.	PC	CSE	Linux Programming Lab	0	0	3	1.5	40	60
9.	PS	CSE	Summer Industry Internship –II	0	0	0	1	40	60
			Total	**16**	**2**	**6**	**22**	**360**	**540**

B.Tech (CSE) IV YEAR II SEM

Sl.No.	Course Category	Dept Course	Course	L	T	P/D	C	Max. Marks	
								CIE	SEE
1	OE		Open Elective –III	3	0	0	3	40	60
2	PC	IT	Cyber Security and Cyber laws	2	0	0	2	40	60
3	PS	CSE	Major Project	0	0	20	10	40	60
			Total	**5**	**0**	**20**	**15**	**120**	**180**

Professional Electives

Code	PE– I (3-1)	Code	PE – II (3-2)	Code	PE – III (3-2)	Code	PE – IV (4-1)	Code	PE – V (4-1)
IT	Information Retrieval Systems	IT	C# & .Net	IT	Mobile Application Development	CSE	Full stack Development	CSE	Augmented and Virtual Reality
IT	Image Processing	IT	Computer Graphics	CSE	Pattern Recognition	AIML	Natural Language Processing	CSE	Computer Vision
CSE	Introduction to Data Science	CSE	Artificial Intelligence and Deep Learning	IT	Big Data Analytics	DS	DevOps	IT	Cloud Computing
CSE	Advanced Computer Architecture	CSE	Distributed Databases	9IC45 IOT	Introduction to Internet of Things	CS	Block Chain Technologies	CS	Ethical Hacking
IT	Human Computer Interaction	CSE	Semantic Web & Social Networks	CSE	Advanced Operating Systems	CSE	Mobile Computing	AIML	Quantum Computing
CSE	Software Requirements and Estimation	IT	Software Project Management	CSE	Soft Computing	IT	Agile Software Development	CSE	Advanced Algorithms